

# Leading change in e-gov projects

Hassania OUCHETTO<sup>1</sup>, Ismail HASSOUMI<sup>2</sup>, Ouail OUCHETTO<sup>3</sup>

<sup>1</sup> Mohammed Vth University-Agdal, 10000 Rabat, Morocco

<sup>2</sup> International School of Management, 148, rue de Grenelle, 75007 Paris, France

<sup>3</sup> FSJES, University Aïn Chock Hassan II, Casablanca, 20000 Casablanca, Morocco

Email: [ouchetto@affaires-generales.gov.ma](mailto:ouchetto@affaires-generales.gov.ma)

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**Abstract-** E-government systems have become prevalent in all parts of the globe since the advent of Information and Communication Technologies (ICT). The spread of Internet and the use of e-government processes are dramatically altering both the service delivery and the users' daily life. These initiatives have enhanced the transparency, the public service quality, the quick service access, the good governance and the users' satisfaction. However, the implementation of such systems face with various barriers related to people's resistance to any change. To solve this issue, our proposal aims at firstly analyzing these barriers which are structural, political, economic, social and cultural and secondly proposing a model for leading change in e-government projects.

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**Keywords:** *ICT, e-government, Change Management, leading change, leading change model, users expectations.*

## I. CONTEXT: E-GOUVERNEMENT

The e-gov is a concept that has emerged with the development of Information and Communication Technologies (ICT). The advent of the Internet has greatly influenced people's daily lives. With this situation, it would not be otherwise with the user of public service than to make "higher expectations towards governments. The citizen would like to find the facilities offered by the Internet in the public services. To this end, the e-gov is an electronic administration for all. The administration is transformed from an informational administration to an interactive one which facilitates the remote activities completion.

E-government is obviously not limited to serve only the Internet community. But, it is intended to meet requirements of all administration users: citizens, businesses, associations and local authorities [1]. Above all it should satisfy their daily expectations and not just those of service concerns. And since, states have continued to step up efforts to meet these requirements. Similarly, ICT specialists, researchers from all disciplines (Information Systems, Information Retrieval, Artificial Intelligence, knowledge management, content management, change management ...) are interested in this new application domain which is significantly disrupting the users' habits. The e-government has among others the following definitions.

### A. Definitions

-The United Nations of Public Administration Network (UNPAN) has defined the E-Government as: "the use of Internet and World Wide Web to provide information and government services to citizens" [2].

- The European Union has adopted the following definition : "... the use of Information and Communication Technology in public administration and related processes in the development of organizational change and skills to enhance democratic processes and contribute to the development of good government and politics " [3].

-The Organization for Economic Cooperation and Development (OECD) provides a definition of e-government as "the use of Information and Communication Technologies, in particular the Internet as a tool to achieve better government" [4].

- According to the International Telecommunication Union (ITU), the E-Government means "the use of information and communications technology in the government to provide public services, to improve management efficiency and to foster mechanisms of democratic values , as well as a regulatory framework that facilitates initiatives for intensive information and stimulates knowledge society " [5].

- The World Bank defines e-government as "the use by government agencies of information technologies (such as Wide Area Networks, the Internet, and mobile computing) that have the ability to transform relations with citizens, businesses, and other arms of government. These technologies can serve a variety of different ends: better delivery of government services to citizens, improved interactions with business and industry, citizen empowerment through access to information, or more efficient government management. The resulting benefits can give less corruption, increased transparency, greater convenience, revenue growth, and/or cost reductions [6].

We can observe that all these definitions are complementary and refer to identified and homogeneous items that could, in our opinion, characterize the e-government, although the terminology used by other authors as those presented above, uses a plurality of expressions that grows every day such as Cyber-democracy or hyper-republic [7] or even Cyber-administration [8].

To summarize, we can define e-gov as new form of public services provision by the use of new facilities. The later is offered by ICT in order to guarantee user quick and easy accesses which lead to the overall governmental services productivity improvement and public policies support thanks to the changes in organization and the use of new skills adapted to this process.

## **B. OBJECTIVES OF THE E-GOV**

The e-gov changes the interactions between government on one hand, businesses and citizens on the other hand, with the objective of transparency, speed and accessibility [9, 10] .

**Transparency:** The e-government plays an important role in the integration of transparency as a key factor in business processes, because it facilitates interaction between government and citizens on the one hand, and between government and businesses on the other hand. It tends to involve them more fully in government decision making processes. It also plays a crucial role in fighting corruption since the user can be afford to make online transactions without a physical contact with government agent. It allows a significant limitation of this phenomenon. The state is finally the winner economically.

**Speed:** The e-gov can meet the new users' requirements in the provision of public service. These are mainly the permanency of this service, availability and accessibility from anywhere, anytime. Indeed, users no longer need to move physically to an administrative one-stop, they can perform all their transactions online. In addition, new procedures for collecting and exchanging data will limit contacts of citizens and businesses with government. In other words, the e-gov allows users to have the major retrieved information and services from the government portals. The users can therefore formulate their requirements via "forms" which are generally processed automatically, hence the speed provided by this system.

**Accessibility:** It is the ability to access electronic kiosks in public administration 7 days a week and 24 hours a day regardless of where or when one is. Now we no longer speak about offices opening and closing. Services are available irrespective of the time or the place. Users have, therefore, multichannel access (PC, laptop, PDA, iPhone) to public service. No question of suffering from the vagaries of public service workers. For this purpose, it is recommended that governments develop national initiatives of e-gov services adapted to the citizens and businesses needs. To achieve a more efficient allocation of resources and public affairs; the governments should therefore support the initiatives of international cooperation in the field of e-government to improve transparency, accountability and efficiency at all levels of public service. The Action Plan of the World Summit on the Information Society (SMSI) describes it as "the advent of information society which is people-centered, inclusive and development-oriented and where everyone can generate, access, utilize and share information and knowledge. This

opening allows individuals, communities and peoples to achieve their full potential and encourages sustainable development and improved quality of life "[11].

## II. II-PROBLEMATIC: NEED OF LEADING CHANGE

The process of implementing e-government projects requires the analysis of both the existing public services supply and implementation needs of such projects. It is also important to analyze the impact of this change on the daily live of the public services stakeholders including the businesses and citizens on the one hand and agents of the state known to facilitate this change on the other hand.

In addition, e-government programs require significant organizational change to be successful. Indeed, the project promotes the use of electronic business. It is dramatically altering the way business is conducted intra and enter governments. Such a wide-spread shift in culture and behavior cannot be achieved without a commitment to change management.

Led by the top government, a change program must be driven throughout each ministry and organization. Therefore, the government technology agency should evolve into a full-fledged organization. This agency should be led by an information chief officer in order to help managing, oversee, expand, and promote the continuous evolution of the e-government program. Such substantial transformation cannot be accomplished without the right blend of oversight and change commitment. To drive this, governments must lead from the top by requiring high-level managers in the organization. It is necessary to have a change agenda from each ministry or agency, approved by the heads of the departments and make sure that this change agenda cascade down through the ministries with the support of appropriate learning and training programs that mobilize lower-level employees to embrace the goals of e-government.

While improving the supply of public services is a legitimate expectation of citizens, the conditions of its realization are not often easy to recognize by the various stakeholders of this process. Hence, the need to explore the various barriers and obstacles that may delay or even prevent this shift. The identification of these barriers permits governments, in charge of carrying out these initiatives, to adopt policies of good implementation that will address all these difficulties. In other words, it will be discussed to identify the different barriers to implement the change policies (leading change). These barriers and obstacles are structural, political, economic, social and cultural.

*Structurally*, it is necessary to review the existing administrative structures and to adapt them to the new context that is emerging. In fact, "The traditional bureaucratic paradigm, which is limited to the internal productive efficiency, to rationality, the departmentalization, hierarchical control and management oriented rules" [12], will be replaced by competitiveness and knowledge-based economic needs such as flexibility, network organization, horizontal / vertical integration, innovative entrepreneurship, accelerate service delivery, and implementation of strategies that focus on user needs. "These new paradigms motivate the transition to the paradigm of e-gov which will focus on creating coordinated networks, external collaboration and customer service" [13].

*In political terms*, there are several challenges. Firstly, the investment must be accompanied by deep restructuring that are often difficult to be implemented by the politics. Secondly, problems arise such as those related to lack of interoperability of many services, the diversity of laws and administrative practices among different levels of power, identity management and sometimes to the insufficient degree of reliability and security of existing networks. Furthermore, progress in this area is particularly important for Small and Medium Enterprises (SME) which are penalized by the heaviness of the red tape and administrative tasks to be achieved [14].

*Socially*, it is important to convince the user that the e-gov must make his life easier and not vice versa. This involves three key factors: accessibility, usability and acceptance [15].

- **Accessibility:** each service must be accessible by anyone from anywhere and anytime. The concept of e-Government allows increasing efficiency and effectiveness, but these objectives will be achieved only if this service is accessible by the majority of the citizens. While the Internet population is growing exponentially, there is a significant number of users who are unable to access e-government for various reasons. Some users may have physical or cognitive limitations and sometimes both. Therefore, universal access is still a mirage. Similar services, such as automatic phone answering systems, should

be kept out of the web. Governments can provide Internet access through public terminals as part of their efforts for universal access.

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- **Usability:** Users are often novice ones or at least non-experts. They need guidance to find the right way to perform transactions. Governmental web sites must be usable to be effective. This aspect of minimum accessibility must be taken into account in the used technical standards.
- **Acceptance:** a successful implementation of e-government requires a re-conceptualization of the government. As e-government becomes a reality, the public sector organization should focus on system efficiency and user satisfaction. Internally, power struggles and control services will become more widespread. Externally, the processes must be user-oriented and not administration-oriented. In other words, efficiency and effectiveness are not the only factors to be taken into account by the organization.

*In cultural terms*, challenges are: the gradual disappearance of human warmth and consequently the corruption opportunity. The human warmth has always existed as a motivator of traditional services, delivered by the physical channel, to citizens. This is a context in which "the inanimate environment is composed of the atmosphere, ambiance, lighting, decoration quality, music, smells, colors, light and even the uniforms of officials. Contact personnel have a major role" [16, 17]. The state employee is considered as an enlightened guide, hence.

However, with the e-gov, services result from the citizens' interaction on one side and technological interfaces on the other. In this case, the Information and communication technologies are used for communication than for production and services distribution [18]. Thus, the interaction takes place without any official involvement or contact personnel [19, 20]. The government performs certain activities, such as the posting of downloadable forms. It offers the possibility of online submission of these forms, and payment by credit card. These transactions are insured by using a secure connection.

In addition, citizens must also carry out activities that transform their own states, such as searching the right website address, read the information on the e-services' offer, select the right service required, introduce personal data, make online payment... If these activities are badly executed, the obtained service value is not fully reached. For example, a citizen with little experience or little knowledge of computers science will receive low quality services [21].

The corruption is the act that a public official or a person who performs public functions, directly or indirectly solicit anything of monetary value or other benefits or a sum of money to a taxpayer, for right treatment or to facilitate the conclusion of an administrative procedure. It is also called bribe "a sum of money or other favors offered to a person occupying a position of power to influence his views or his conduct, to circumvent a process or in anticipation of a turnaround" [22]. With e-gov services, such practices will no longer exist: there is no possibility of blackmail, the citizen have no contact with the public official. These agents' habits require careful analysis to find others motivations in case of e-gov projects implementation. State employees have to learn to serve and not to be served, to facilitate and not to complicate, to accelerate not to delay.

### III. PROCESSES OF CHANGE

These multifaceted challenges which involve governments in the process of implementing e-government projects will be removed by the practice of effective procedures recognized by analysts at managerial discipline called change management. By applying the main rules, we will develop a proper approach, which will be presented as a model for any attempt to change management in implementing e-government projects.

The different steps of this process are: prepare to lead change, develop a vision and strategy, assess the situation and determine needs, design the desired situation, analyze the impact, plan and organize the implementation, Implement change and finally integrate and celebrate the new situation.

***a. Getting ready to drive change***

That consists of having a leader, creating a guiding coalition and raising awareness of the urgency of need. In fact, to ensure the success of a project that challenges old habits and recommends a change, we need a charismatic leader for the company or a legitimate leader and visionary in terms of administration. The role of managers in leading the process of change has been the subject of several studies. In general, the literature gives the leading two major roles in the process of organizational change. The first is to express the interest of changing the organizational system. The second role is to implement change and ensure its sustainability.

In all cases a change leader must know where he wants to go, how to get there and what it takes to get there. This is known as a visionary, a good team and a better understand of the urgency sense. As stated Huerta Melchor [23]: "First, nothing happens without a leader willing to do [...]. The company is an abstraction, its new identity must be paid by persons who have the legitimacy to say, the strength to build the necessary political basis and empathy to understand the passions" [24].

Creating a guiding coalition is to implement a change management team, aware of the difficulties and obstacles to encounter, but determined, as the leader, to achieve its vision. In the case of e-gov projects, the guiding coalition should represent all parts of government. Each government department must be represented in this coalition. Ideally, the prime minister or members of government must be highly represented help to raise awareness about the "urgency" of the implementation of e-gov projects.

***b. Develop a vision and strategy, communicate***

Developing a vision and strategy is the responsibility of political leader holding the legitimacy of the people. The latter must project the administration of his country in a global movement that requires significant adjustments in their daily lives. The e-gov which include reviewing the traditional methods of public service to accommodate the facilities offered by ICT . It is a process that emanates from a well thought and vision to be achieved through the political decision makers. They must make every effort for its realization. This necessarily involves communication with all stakeholders in the public sector that are citizens, businesses and government employees.

To communicate means to interact with stakeholders. The main challenge lies in establishing and maintaining a relationship of trust and an ongoing exchange. One of the keys is doing this: say what

you are doing, and do what you are saying. Getting understanding and commitment to a new direction is never an easy task, especially in administration. It would certainly be simpler that content is, but the reality is that our behavior will contribute to communication, and people put more faith in our actions than our words. The credibility of the promoters of change, as is their ability to inspire trust, are important factors in the effectiveness of communication. In any event, a successful change management is conducted by open communication between the leaders of change and the various components involved in this process. Communicate a change vision is "to keep it simple, to use metaphors, analogies and examples, to use many different forums, to repeat and repeat, to listen and be listened to and then to walk the talk or lead by example." [25]. Foster interactive communication and dialogue: This option results in a communication based on flux emitted by all actors levels of the organization. Do it down, bottom, horizontal and vertical. Thus, multi directional flows of communication would follow and would be based on exchange between all the organization stakeholders.

***c. Assess the situation and determine the needs***

The need for change comes from dissatisfaction from a given situation, the inability to solve a given problem. This situation, as suggests Huerta Melchor [23], "push to pass a reform proposal that contemplates or has the vision of an improved situation." Dissatisfaction may have different sources such as regulations, processes and procedures and / or obsolete ideologies, inappropriate technologies. Moreover, "public organizations are part of a system of multilevel governance" [26]. The need for reform may be due to external factors and / or internal at different levels of governance. Admitting the importance and influence of these elements in the process of policy formulation helps

to explain why and how changes occur. The external environment is changing rapidly and countries increasingly need to adapt to new global requirements. The transfer of ideas, innovations, and best practices between countries is also facilitated by global sources, international and transnational policy change.

Given this situation, each administration determines its needs, based on the results of this evaluation. E-gov projects come from the observation that infrastructure, human resources and methods previously used to provide the public service are inappropriate to new demands for speed, efficiency, transparency and integrity expected by users of the era of information and communication technologies. These needs are emerging appropriate communications infrastructure, simplified procedures, retrained staff and especially a democratic vision of public service.

#### ***d. Design the desired situation***

The design of the desired situation will be based on the legal, technical, economic, social and cultural aspect. The e-gov is a process that requires the revision of laws to fit the context of the digital economy that requires management of risk of lack of privacy, piracy and cyber crime especially. To overcome these risks the law-makers must be in tune with the new information society.

Moreover, the transport infrastructure of data and information is to be modernized by allowing higher flow rates through the use of appropriate technologies such as fiber optics. This requires significant investment on the part of governments to ensure a good flow of information between the administration and public service users.

Similarly, in economic terms, the state must learn to be productive by streamlining its expenditures by a political recipe that escapes the embezzlement of state funds as it once was. The automation of public service will result in some transparency of transactions carried out between users and the administration.

And finally in the social and cultural development, one must see a re-education of the citizen by bringing it gradually to consider computer literacy as an absolute necessity of access to public service. The relationship between the administration and its users should reflect mutual trust. The e-services' use will no longer be simply a satisfaction of a need, but also the practice of a new culture: digital culture [27].

#### ***e. Analyze the impact of change***

The impact of changing practice in the provision of public services will be observed on the behavior of state officials on one hand and of users on the other.

The officials previously considered as essential interfaces between users and the service, will no longer play this role directly. Their involvement will be more tactful, almost invisible by the user. Indeed, the state agent will have the task of organizing all at the base by providing everything necessary to secure online transactions. This new approach may have an impact on the behavior of the public official. The latter will feel isolated from the public. This distance should be a reason for lost of motivation. Leading Change in this context requires an analysis of future behavior of public officials to prepare favorable conditions for the adaptation to this new situation.

The various stakeholders will certainly discover facilities in the use of public service. They will benefit a boost, confidentiality and availability of permanent service. However this new situation requires a literate audience, an audience interested in the economy of time, an audience willing to adapt to innovation. If it is easier to encounter this kind of public in developed countries, it is not often the case for developing countries where the expectations are of a different order: In the latter, people have more need a minimum to survive, the problem of lack of time does not arise, confidentiality is not so important and innovation is not always bringing happiness. Changing patterns in such environments requires a good analysis of expectations.

#### ***f. Planning, implementation and consolidation of change***

Planning consists in organizational per-positioning. The first phase should focus on the preparation for change through communication with staff and stakeholders. In addition, it can consist in some initial job analysis including preparation of job descriptions for the introduction of a new organization structure and the delivery of general change management awareness training to staff. This phase is aimed at preparing the organization for change and managing the associated risks and benefits.

The second phase is change management plan implementation. The focus should be on the implementation of the change against the agreed plans and the strategy objective. The main activities in this phase are communication, training design and delivery, organizational implementation, human resources environment, health and safety.

Ongoing support and consolidation phase will need to concentrate on continual support and improvements as the changes become embedded within the organization and are regarded as the organization's new culture. Continued employee involvement and consultation through a rolling communications program will need to be developed in this final phase to assure the employees of the importance of the changes. In addition, the organization's management will need to assist this process further through open dialogues with staff and by conducting research into their concerns and reacting to the findings.

***g. Generating short term wins (quick wins)***

Running a transformation effort without serious attention to short term wins is extremely risky. Sometimes one can get lucky, visible result just happen. But generally, this luck runs out the organization has a challenge to fulfill the change. According to John P. Kotter [28], there are six key roles of short term wins: “provide evidence that sacrifices are worth it: wins greatly help justify the short term costs involved. Reward change agents with a part on the back: after a lot of hard work, positive feedback builds morale and motivation. Help fine-tune and strategies: short term-wins give the guiding coalition concrete data on the viability of their ideas. Undermine cynics and self serving resisters: clear improvement in performance make it difficult for people to block needed change. Keep bosses on board: provides those higher in the hierarchy with evidence that the transformation is on track. Build momentum: turns neutral into supporters, reluctant supporters into active helpers”. e-gov projects executives will analyze the different services to be automated. In this analyze, it will be helpful to identify quick wins services like taxes processes, civil status processes, finance transactions etc. Otherwise, it will be important to begin in big cities where time and efficiency is more needed

***h. Anchoring new approaches in the culture:***

Culture refers to norms of behavior and shared values among a group of people. In the case of e-gov projects, we have public agent culture and users' culture to take in consideration. Public agent culture is the culture of empowered agent, with all key capabilities to provide public service. Every agent is a king in his position. Changing this approach is really challenging. Users in their part are supposed to be passive and not able to obtain services as they need, when they need. They always face not available agent and generally corrupted.

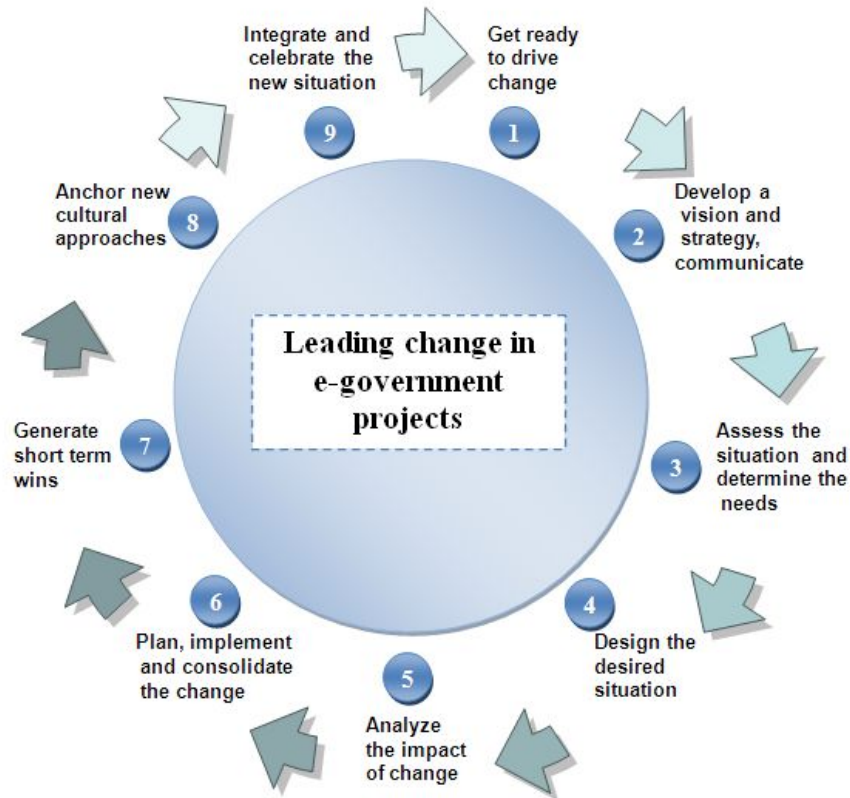
So, when a new practice proposed by e-gov services is not compatible with these relevant cultures, they will always subject to regression. Change will be difficult if the new approach is not firmly anchored in stakeholders' norms and habits. For John P. Kotter, (1996) “What is important is to graft the new practices onto the old roots while killing off the inconsistent pieces.”

***i. Integrate and celebrate the new situation***

The new situation after the changes should be celebrated. It is about strengthening communication to a wide audience and convinces all that “now things are not the same”. This step aims to rally the doubters and to convince definitely the project stakeholders. The first services offered must be free for better public awareness of the new facilities created. Media will be used to celebrate this change event. It is important to aware every one, in towns or in rural area.

#### **IV. CHANGE MODEL IN E-GOV PROJECTS**

With different processes analyzed in the previous section, we have established the following model, based on the classic model of change and adapted to the case of e-government projects.



**Figure 1:** *Change Model in e-gov projects*

## V. CONCLUSION

The enabling role that Information and Communication Technologies can play in facilitating and accelerating socio-economic development (ICT4D) is now being recognized by most governments. A growing number of national and local governments are setting up national ICT policies, putting critical information online, automating administrative processes and interacting with their citizens through online services. But the implementation of e-gov infrastructure is a complex program which required different kinds of undertakings. In this article, after the presentation of e-gov context and the analysis of need of change, we have listed processes needed to implement change in this context. These processes are used in a change model in general and have been adapted in the case of e-government projects. Through this approach, it will be easier to manage this kind of project, particularly in developing countries where realizing change is generally a great challenge.

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